STATE OF MICHIGAN



DEPARTMENT OF NATURAL RESOURCES & ENVIRONMENT

LANSING



**REBECCA A. HUMPHRIES** 

DIRECTOR

JENNIFER M. GRANHOLM GOVERNOR

October 27, 2010

# VIA ELECTRONIC and US MAIL

Mr. Farsad Fotouhi Corporate Vice President Environmental Engineering Pall Life Sciences, Inc. 600 South Wagner Road Ann Arbor, MI 48103-9019 Mr. Alan D. Wasserman Williams Acosta, PLLC 535 Griswold Street Suite 1000 Detroit, MI 48226-3535 Mr. Michael L. Caldwell Zausmer, Kaufman, August & Caldwell, P.C. 31700 Middlebelt Road, Suite 150 Farmington Hills, MI 48334

Dear Sirs:

SUBJECT: Gelman Sciences, Inc. Remedial Action Final Well Identification Report, March 12, 2010

The Department of Natural Resources and Environment (DNRE) has identified several concerns with the well identification process used by Pall Life Sciences (PLS) to meet the requirements of paragraph 6 of the Order Prohibiting Groundwater Use (PZ Order) issued by the Washtenaw County Circuit Court (Court) on May 17, 2005. As a result of a dispute regarding the PZ Order, the Court issued an Order Resolving Plantiffs' Motion to Enforce Order Prohibiting Groundwater Use (Resolution Order) on September 2, 2009. PLS submitted its Final Well Identification Report (Report) to document the steps taken to comply with the Resolution Order. The first section of this letter provides the DNRE's comments on PLS's Report. The second section of this letter provides the submittal mentioned above.

# **Final Well Identification Report**

# Surveys and Notifications

The Report divided the addresses into four categories, depending upon the action to be taken. The first three categories required that PLS survey and/or provide notification<sup>1</sup> regarding the prohibition against use of any existing private water supply wells within the Prohibition Zone (PZ). The Report indicates that the owner of the property at these addresses would be contacted. The Resolution Order required that PLS request the resident of any property surveyed to forward the information to the owner, if applicable. We note that the letters mailed to these properties (as provided in Exhibits 1, 2, and 3) were addressed to "Resident" and that they did not include a request that any non-resident owner be notified. There is no indication that PLS attempted to determine if the resident was also the owner of the property or requested that the letter be forwarded to the owner, if applicable. A resident who is not the property owner may not have provided the letter to the owner. In order to ensure the protectiveness of the PZ, it is important that the property owner be surveyed and/or notified.

On a related matter, it recently came to our attention that the house at 1251 North Main Street has been vacant for many years, and recently collapsed. Although the Report documents that the notice was mailed to that address, it is likely that it was not delivered. Please confirm that all of the letters were mailed in envelopes that contained PLS's return address. To ensure that

<sup>&</sup>lt;sup>1</sup> The Resolution Order required that any properties surveyed also be provided with a copy of the PZ Order. In some cases the DNRE agreed that a survey was not required, and that PLS needed to provide only the PZ Order.

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each property owner has received the relevant documents, PLS must either document that it requested the Resident to forward the information to the owner or determine if any of the properties are not occupied by the owner and provide the survey and/or notification to them at their address of record. PLS must then provide the DNRE with documentation that it has complied with the terms of the Resolution Order, which were intended to ensure that each property owner received the required survey and/or notification. Please also confirm that each survey and/or notification was mailed in an envelope with PLS's return address.

The letter provided in Exhibit 1 does not indicate that any wells found must be properly plugged. The other two letters (Exhibits 2 and 3) did indicate that PLS would pay to plug any wells found. All such future correspondence must include language to indicate that PLS will pay the cost of plugging any wells found.

## Additional Documentation

The fourth category of addresses in the Report included 12 for which PLS was to provide additional documentation. The text in this section of the Report, at the top of page 3, states:

"The parties also agreed that PLS would either provide documentation *confirming the availability* (emphasis added) of City water within one year of construction or the name of the City staff person who provided the information to PLS for the following properties:"

Pursuant to the Resolution Order, the parties agreed upon the addresses that needed to be surveyed. The Resolution Order required PLS to survey the residents regarding the existence of a well on the property, request access and inspect the property if no response is received or the response does not affirmatively confirm the absence of a well, submit documentation of the results, and provide a copy of the Court's May 17, 2005 PZ Order. As an alternative to surveying some of the properties, the parties agreed that PLS could provide documentation to support the determination that no survey was needed, as documented in the text for the agreed upon list of addresses<sup>2</sup>.

For five of the addresses in this category, PLS is apparently relying on the "tap date" as documentation that these houses were connected to the City of Ann Arbor (City) municipal water supply (City water) on that date. As we have indicated in previous correspondence to PLS, the "tap date" (the date that a valve was installed on the water main in the right-of-way for an address) is not documentation that the house was actually connected to City water at that time.

The houses at 1600, 2015, and 2101 Arborview are not in subdivisions and are currently in the City. If PLS can document that these houses were in the City when built, the DNRE will accept that the existence of a well is unlikely and that a survey is not necessary. These houses were all built after 1945, when the City's ordinance required connection to City water. If these houses were not in the City when built, PLS must provide documentation that they were connected to City water within one year of being built (i.e., date water meter installed), or survey the owner(s).

The houses at 2020 and 2106 Dexter are in Ann Arbor Township (2020 Dexter was mistakenly identified as being in the City in earlier PLS and DNRE documents). The Report also apparently relies on the "tap date" to indicate the house was connected to City water when built. As

<sup>&</sup>lt;sup>2</sup> This list was transmitted from Assistant Attorney General Celeste Gill to PLS's legal counsel on September 12, 2009.

indicated above, that does not document that the house was actually connected to City water at that time. Because these township properties are not subject to City ordinances, they were not required to connect to City water, regardless of when they were built. PLS must provide documentation that these houses were connected to City water within one year of being built (i.e. date water meter installed) or survey the owner(s).

The copy of the PZ Order included in Exhibits 1, 2, and 3 did not include a copy of the Figure 1, an attachment to the PZ Order. One of the survey respondents noted that there was no map enclosed. All future correspondence that requires PLS to provide a copy of the PZ Order, must include the entire PZ Order, including Figure 1.

### Results

The Report indicates that two water supply wells were found and plugged (1605 Miller and 2005 Penncraft). There is no indication that PLS attempted to sample these wells. The DNRE's approval of the well identification work plan required that any wells found be sampled for 1,4-dioxane. Please inform us if any attempt was made to sample these wells, and provide us with any results obtained. In the future, PLS must attempt to collect a water sample from any well found before it is plugged and notify the DNRE of the results, or that a sample was not obtainable.

Additional Comments Regarding Prior Well Identification Work Plan Results PLS's most recent correspondence on this matter, dated October 24, 2008, included a table with PLS comments. Six addresses in the table (3404 Porter, 281 Rhea, 249, 267, and 359 South Wagner, and 211 Westover) included the comment: "Will inspect or send letter." The DNRE has not received any information that these letters were sent. Please provide documentation that the owners of these properties have been properly notified and provided a copy of the entire PZ Order, and the results of any inspection performed. If this has not been done, the DNRE believes that PLS should provide a notification letter similar in content to the version approved by the DNRE on April 18, 2006 to the owner of the property, including a copy of the PZ Order.

There are 15 addresses that PLS had previously surveyed where it was not able to document that a copy of the PZ Order had been provided. These addresses are identified in the enclosed Table 1 in the "Comments" column by "PLS to provide PZ Order." The DNRE believes it is PLS's responsibility to do so, since the original work plan did include this requirement. If PLS does not do so, the DNRE will provide the owners with an explanatory cover letter and a copy of the PZ Order. Please inform us of PLS's intent regarding this request.

There are 25 addresses that have not been surveyed where the existence of a water supply well has not been eliminated or a well is believed to exist, based on the available information. These addresses are identified in the enclosed Table 1 in the "Comments" column by "DNRE to provide PZ Order." The DNRE will provide the owners with an explanatory cover letter and a copy of the PZ Order unless PLS notifies us that it intends to do so. If PLS agrees to provide this notice, it must use a letter similar to the version approved by the DNRE on April 18, 2006 and provide documentation to the DNRE that the notice has been mailed in an envelope with PLS's return address.

The DNRE recently became aware of a few older houses in the Lake Wood subdivision, which was platted in 1925 when it was part of Scio Township. PLS's February 28, 2006 Well Identification Report represented that this subdivision was provided with City water at the time it

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was platted. The DNRE had accepted that representation until a recent review of historical maps of the City's water supply system showed that this subdivision was not within the City's water distribution system until at least 1955. The 1959 map shows there was an elevated water tank in this subdivision. These maps indicate that City water became available to this subdivision between 1955 and 1959. PLS must provide additional documentation regarding the water supply for this area and perform the well identification process for any houses where connection to City water cannot be documented within one year of construction.

PLS has yet to take any action to resolve the use of the irrigation well at the Bethlehem Cemetery (2801 Jackson). As the DNRE has previously indicated, this well is subject to the PZ Order and must be plugged unless PLS requests an exception to the PZ Order and receives the DNRE's approval of the exception. PLS must take steps to resolve the status of this well this year.

## Conclusion

The enclosed Table 1, sorted by street address, documents the current information gathered about the presence or absence of any private water supply wells at addresses within the current PZ where such wells were known, suspected or their absence could not be verified. The DNRE will maintain this list and make it available to the public via the DNRE's Gelman Sciences, Inc. web site.

PLS will remain responsible for properly plugging any wells within the current PZ, and any expansion thereof, that are subsequently identified unless an exception is approved, and for properly plugging any wells where an exception is approved once the circumstances relating to the exception no longer apply.

As indicated above, there are several additional steps that must be taken to complete the tasks required by the PZ Order for the original PZ and to complete the tasks included in the original well identification work plan. Please provide us with the information requested and inform us within 30 days of the date of this letter whether PLS intends to perform some or all of the additional tasks discussed in this letter, and a schedule for doing so.

Should you require further information, please contact me at 517-780-7937; kolons@michigan.gov; or the DNRE Jackson District Office, 301 East Louis Glick Highway, Jackson, Michigan 49201.

Sincerely,

Sybil Kolon Environmental Quality Analyst Gelman Sciences Project Coordinator Remediation Division

SK/KJ

Enclosures cc: Ms. Celeste Gill, Department of Attorney General Ms. Lynelle Marolf, DNRE Mr. Philip Schrantz, DNRE Mr. Mitchell Adelman, DNRE/Gelman File Mr. James Coger, DNRE

	1,4-							DNRE			
	dioxane	date of	date		Survey/	PZ Order	In 9/2/09			3	
Address	ppb	sample	built	Well History and Status	Response	Provided	Order <sup>1</sup>	Code	WAL <sup>2</sup>		Comments <sup>4</sup>
Arborview 1516	NA	NA	1967	not in subdivision; first billed for water in 1967 & annexed 1968	N	N	Y4	A1	NA	0	done
				owner of 28 years says hooked up when built; no knowledge of							
Arborview 1522	no sample	NA	1935	wells, not in subdivision; in city limits when built, before hook up required; 1st billed for water in 1978	YY	Y	Y3	E1		?	done*
AIDUIVIEW 1322	no sample	IN/A	1933	required, 1st billed for water in 1976	11	1	15	LI		1	PLS needs to provide documentation
											that in city when built or hooked up to city
											water within one year of being built; date
				not in subdivision; in city limits when built?; 1st billed for water in							tap available does not confirm hooked up
Arborview 1600	NA	NA	1953		Ν	Ν	Y4	E2		?	at that time
				not in subdivision; in city limits when built, 1st billed for water in							
Arborview 1606	NA	NA	1981	1981	N	N	Y4	A1	NA	0	done
				not in subdivision; in city limits when built, 1st billed for water in							
Arborview 1610	NA	NA	1984	1985	N	N	Y4	A1	NA	0	done
				not in subdivision; in city limits when built; 1st billed for water in							
Arborview 1614	NA	NA	1984	1984	N	N	Y4	A1	NA	0	done
											PLS needs to provide documentation
											that in city when built or hooked up to city
				nat in auhdivisions in aits limita when huilt?s 1at hillad for water in							water within one year of being built; date
Arborview 2015	NA	NA	1956	not in subdivision; in city limits when built?; 1st billed for water in 1977	Ν	Ν	Y4	E2		?	tap available does not confirm hooked up at that time
AIDOIVIEW 2013	INA	IN/A	1900	1977	IN		14	LZ		1	PLS needs to provide documentation
											that in city when built or hooked up to city
											water within one year of being built; date
				not in subdivision; in city limits when built?; 1st billed for water in							tap available does not confirm hooked up
Arborview 2101	NA	NA	1953	1982	Ν	N	Y4	E2		?	at that time
				not in subdivision; in city limits when built; 1st billed for water in							
Arborview 2107	NA	NA	1992	1993	Ν	N	Y4	A1	NA	0	done
				part of Arbor Heights subdivision; built in city after hook-up							
Arborview 2111	NA	NA	1955	required	N	N	Ν	A1	NA	0	done
			1050	part of Arbor Heights subdivision; built in city after hook-up							
Arborview 2113	NA	NA	1958	required	N	N	N	A1	NA	0	done
Arborview 2115	NA	NA	1956	part of Arbor Heights subdivision; built in city after hook-up required	Ν	N	N	A1	NA	0	done
AIDUIVIEW 2115	INA	INA	1853	resident not aware of any wells, no inspection; not in subdivision;	IN	IN	IN	AI	INA	0	done
			per	built before hook-up available or required; tap available 1915;							
Dexter 1500	no sample	NA	owner	annexed to city in 1964; 1st billed for water in 1978	YY	Y	Y1	D1		1	done*
Dexter 1610	no sample	NA	1937	Assessor's Plat #12, built before hook-up required; annexed 1964	N	Ň	N	E2		?	DNRE to provide PZ order
				Assessor's Plat #12, built before hook-up required; annexed							
Dexter 1614	no sample	NA	1931	1964; 1st billed for water 2005	Ν	Ν	Ν	E2		?	DNRE to provide PZ order
			1920	built 1929 per city utilities, 1920 per assessor, tap date 6/29/22;							
			or	built in city before Assessor's Plat #12 was platted & before hook							
Dexter 1616	no sample	NA	1929	up required	N	N	N	E2		?	DNRE to provide PZ order
Dexter 1704	NA	NA	1952	Assessor's Plat #12; built in city after hook-up required	N	N	N	A1	NA	0	done
Devite # 1700		NIA	4000	tap date 7/24/26; built in city before Assessor's Plat #12 was	N	N		50		_	
Dexter 1706	no sample	NA	1926		N	N	N	E2		?	DNRE to provide PZ order
Dexter 2008	no sample	NA	1935	resident not aware of any wells, no inspection; not in subdivision, built before hook-up required	YY	Y	Y1	E1		?	done*
DGALGI 2000	no sample	11/7	1300	not in subdivision; PLS confirmed annexed to city prior to 1944,	11			L I			
Dexter 2010	NA	NA	1954	would have been required to hook up to city water when built	Ν	Ν	Y4	A1	NA	0	done
					-					-	that hooked up to city water within one
				not in subdivision; A2 twp island, tap available within one year of							year of being built; date tap available
Dexter 2020	NA	NA	1946	construction per PLS	N	Ν	Y4	E2		?	does not confirm hooked up at that time
				not in subdivision, built before hook-up available or required;							
Dexter 2102	no sample	NA	1901	annexed to city in 1971; 1st billed for water in 1996	YN	Y	Y1	D1		1	done*

	1,4-	data af	data		Comment	PZ Order	In 9/2/09	DNRE Comment			
Address	dioxane ppb	date of sample	date built	Well History and Status	Survey/ Response	PZ Order Provided	Order <sup>1</sup>	Comment	WAL <sup>2</sup>	Well <sup>3</sup>	Comments <sup>4</sup>
<b>D</b> ( 0400			100-	not in subdivision; A2 twp island, not required to hook up when				50		_	PLS needs to provide documentation that hooked up to city water within one year of being built; date tap available
Dexter 2106	no sample	NA	1937	built, on city water	YN	?	Y4	E2		?	does not confirm hooked up at that time
Dexter 2200	no sample	NA	1950	not in subdivision; A2 twp island, on city water, 1st billed for city water in 1990; owner of 15+ yrs unaware of any wells	YY	Y	Y3	E1		?	done*
Dexter 2310	NA	NA	1966	survey also included 2320 & 2324 Dexter, same owner, per PLS 10/19/06 email, hooked up when built; annexed 2002	YY	?	N	A1	NA	0	done
Dexter 2320	ND	Jul-02		well abandonment log received	YY	?	N	A2	х	0	done
Dexter 2324	NA	NA	1979	restaurant; tap available and first billed for city water in 1979; annexed 2002	YY	?	Y4	A1	NA	0	done
Dexter 2330	NA	NA		see 2340 Dexter; was on same parcel & served by well at 2340 Dexter	N	?	N	A1	NA	0	done
Dexter 2340	ND	Sep-06		PLS hooked up to city water & plugged well; had shared well with 2330 & 2344 Dexter on same parcel; now redeveloped as Aldi's	N	?	N	A2	x	0	done
Dexter 2344	NA	NA		see 2340 Dexter; was on same parcel served by well at 2340 Dexter	N	?	N	A1	NA	0	done
Ferry 3401	127	Apr-86		well abandonment log received	N	N	N	A2	X	0	done
Ferry 3409	2900	Jan-91		well abandonment log received	N	N	N	A2	x	0	done
Ferry 3417	166	Apr-86		well abandonment log received	N	N	N	A2	x	0	done
				inspected, no well found; original structure demolished and replaced in 2004; old house had well; kept open for monitoring							
Ferry 3432	3800	Aug-01		per 5/24/94 letter;	YY	?	Ν	D3		1	PLS to provide PZ order
				daycare owner of 10 years states well was removed when hooked up to city water, not aware of who removed it; PLS staff							
Ferry 3445	ND	May-86	1925	examined property-no wells found; annexed 2000	YY	?	N	D3		1	PLS to provide PZ order
Ferry 3459	ND	Jan-06		well abandonment log received	N	N	N	A2	х	0	done
Ferry 3463	ND	May-86		well abandonment log received	N	N	N	A2	х	0	done
Glendale S 312	no sample	NA		not in subdivision; 2 residences on parcel, older one built before hook-up required; tenant of 5 yrs had no knowledge of wells; PLS staff inspected property - no wells found; annexed 1989	YY	Y	Y3	E1		?	done*
Glendale S 402	no sample	NA	1953	not in subdivision; owner since 1985 says house built approx. 1950, hooked up when built; no knowledge of wells	YY	Y	Y3	A1	NA	0	done
Glendale S 404	no sample	NA	1950	not in subdivision; owner since 1966 says hooked up when built, no knowledge of wells	YY	Y	Y3	A1	NA	0	done
Jackson 1743	no sample	NA	1901	built before Assessors Plat No. 4 was platted in 1920 & before hook-up required; annexed 1964; 1st billed for water 1982	N	N	N	E2		?	DNRE to provide PZ order
Jackson 1903	no sample	NA	1901	built before Assessors Plat No. 4 was platted in 1920 & city water not available when built; annexed 1964; 1st billed for water 1992	YN	?	N	D3		1	PLS to provide PZ order
				owner since 1955 not aware of any wells on property but said house not hooked up when built; built before Assessor's Plat No. 4 was platted & before hook-up required; annexed 1964; 1st							
Jackson 1921	no sample	NA	-		YY	?	Ν	D3		1	PLS to provide PZ order
Jackson 1943	NA	NA	1920	resident not aware of any wells, no inspection	YY	Y	Y1	D1		1	done*
Jackson 2801	ND	Sep-06		Bethlehem Cemetery irrigation well still in use	N	N	N	С		1	PLS to plug or request exception
Jackson 3050	129	Jan-07		Weber's Inn; heat pump well w/discharge to surface water; plugged Jan 2007	N	?	N	A2	x	0	done
Jackson 3365	445	Apr-08		DEQ approved as monitoring well July 2006; also the location of MW-30i&d	N	?	N	В		1	PLS to plug when not required for monitoring
Jackson 3395	261	May-86	1952	kept open for monitoring per 5/24/94 letter; inspected, no wells identified; annexed 1987	YY	?	N	D3		1	PLS to provide PZ order
Jackson 3480	2	Jan-07		Varsity Ford; well abandonment log received	N	?	N	A2	х	0	done

	1,4-					DNRE					
	dioxane	date of	date		Survey/	PZ Order	In 9/2/09				
Address	ppb	sample	built	Well History and Status	Response	Provided	Order <sup>1</sup>	Code	WAL <sup>2</sup>	Well <sup>°</sup>	Comments⁴
				2380 & 2390 Dexter were previously on this parcel, vacant 2008							
			10.10	thru 2010; not in subdivision; AKT Peerless Phase II ESA, Sept.							
				2007 indicates potential for old drinking water wells; annexed		0		Da			
Maple N 512	NA	NA	1958	1964; 1st billed for water 1988	YN	?	N	D3		1	PLS to provide PZ order
M'II			1000	resident said well plugged in 1930 when hooked up to water; no	201	Ň		4.0		0	1
Miller 1120	NA	NA	1908	inspection	YY	Y	Y1	A2	none	0	done* (cannot confirm well was plugged)
			1901 &		201	Ň		<b>D</b> 4			1
Miller 1128	NA	NA	?	resident not aware of any wells, no inspection; two residences	YY YY	Y	Y1	D1		1	done*
Miller 1146	NA	NA	1952	resident not aware of any wells, no inspection	ΥΥ	Ý	Y1	E1		?	done*
Miller 4504		NIA	4004	not in subdivision; 1st billed for water 1990; annexed 2003; well	YN	?	N	4.0		0	den e
Miller 1521	no sample	NA	1901	plugged & log provided to DEQ	ŶŇ	ſ	N	A2	х	0	done
				resident not aware of any wells, no inspection; not in subdivision;							
Miller 45 44		NIA	4050	two residences on parcel; annexed 1964; 1st billed for city water		V		Γ4		2	-l*
Miller 1541	no sample	NA	1959	in 1993; (also 1547 Miller)	YY	Y	Y1	E1		?	done*
Miller 45 47		NIA	10010	surveyed as part of 1541 Miller (see that address); unknown if			×4	D4		4	-l*
Miller 1547	no sample	NA	1901?	this house has water			Y1	D1		1	done*
											done*; neighbor at 1541 Miller said this
				not in subdivision; city water not available when built; annexed				5.4			house had a well, described location;
Miller 1553	no sample	NA	1915	1982; 1st billed for water in 2005	YN	Y	Y1	D1		1	should DNRE follow-up?
			1000	not in subdivision; city water not available when built; annexed				5.4			
Miller 1575	no sample	NA	1930		YN	Y	Y1	D1		1	done*
			1000	not in subdivision; city water not available when built; annexed &				5.4			
Miller 1593	no sample	NA	1930	1st billed for water in 1970	YN	Y	Y1	D1		1	done*
				inspected, found well & plugged to 105'; not in subdivision; city							
				water not available when built; 1st billed for water in 1979;	2.0.4						done (no indication PLS sampled well
Miller 1605	no sample	NA	1884	annexed in 1983	YY	Y	Y1	A2	х	0	before plugging)
				not in subdivision; city water not available when built; 1st billed for							
Miller 1629	no sample	NA	1901	water 1986; annexed 1987	YN	Y	Y1	D1		1	done*
Miller 1645	no sample	NA	1950	not in subdivision; 1st billed for water 1979; annexed 2006	YN	Y	Y3	E1		?	done*
Miller 1685	NA	NA	1970	not in subdivision	YN	Y	Y1	E1		?	done*
			100-	industrial building on same parcel built 1999; not in subdivision;							
N Main 1251	NA	NA	1925	built before hook-up required	N	Y	Y2	E1		?	done*
N Main 1311	NA	NA	1940	not in subdivision; built before hook-up required	N	Y	Y2	E1		?	done*
N Main 1313	NA	NA	1930	not in subdivision; built before hook-up required	N	Y	Y2	E1		?	done*
N Main 1315	NA	NA	1940	not in subdivision; built before hook-up required	N	Y	Y2	E1		?	done*
N Main 1319	NA	NA	1940	not in subdivision; built before hook-up required	N	Y	Y2	E1		?	done*
				not in subdivision; annexed 1964, no tap available until 1985; 1st							
Newport 0941	no sample	NA	1901	billed for water 2005	YN	Y	Y3	D1		1	done*
Newport 0960	no sample	NA		irrigation well; well abandonment log received	YY	?	N	A2	х	0	done
				old well w/hydrant handle; follow-up call w/owner, said well was	1.0.4						
Newport 0960	no sample	NA		plugged years ago; no well under pump handle	YY	?	N	A2	none	0	done* (cannot confirm well was plugged)
				not in subdivision; tap date 5/29/35; annexed by 1951; combined							
Newport 1005	no sample	NA		with parcel that no longer has house at 1015 Newport	YN	Y	Y1	D1		1	done*
Newport 1015	no sample	NA	1936	no longer exists - see 1005 Newport			Y1	E1		?	done*
Newport 1025	NA	NA	1956	not in subdivision	YN	Y	Y1	E1		?	done*
Newport 1035	NA	NA		not in subdivision	YN	Y	Y1	E1		?	done*
Newport 943	NA	NA	1947	not in subdivision	YN	Y	Y1	E1		?	done*
Newport Rd 1056		NA	1941	resident not aware of any wells, no inspection; not in subdivision	YY	Y	Y1	E1		?	done*
Newport Rd 1057	NA	NA	1948	not in subdivision	YN	Y	Y1	E1		?	done*
Newport Rd 1065		NA	1956	not in subdivision	YN	Y	Y1	E1		?	done*
Newport Rd 1075	NA	NA	1956	not in subdivision	YN	Y	Y1	E1		?	done*
				resident said hooked up when built, no inspection; not in							
Newport Rd 1125	NA	NA	1952	subdivision	YY	Y	Y1	A1	NA	0	done
Newport Rd 1135		NA	1952	resident not aware of any wells, no inspection; not in subdivision	YY	Y	Y1	E1		?	done*
Newport Rd 1144	NA	NA	1947	resident not aware of any wells, no inspection; not in subdivision	YY	Y	Y1	E1		?	done*

	1,4-							DNRE			
	dioxane	date of	date		Survey/	PZ Order	In 9/2/09	Comment			
Address	ppb	sample	built	Well History and Status	Response	Provided	Order <sup>1</sup>	Code	WAL <sup>2</sup>		Comments <sup>4</sup>
Newport Rd 1145	NA	NA	1954	not in subdivision	YN	Y	Y1	E1		?	done*
				identified during well ID dispute; in city when built, before 1945							
Orkney Dr 1202	NA	NA	1940	when hook-up not required	N	N	N	E2		?	DNRE to provide PZ order
Orknov Dr 1206	NA	NA	1940	identified during well ID dispute; in city when built, before 1945 when hook-up not required	N	N	N	E2		?	DNRE to provide PZ order
Orkney Dr 1206 Penncraft Ct	INA	INA	1940	community well taken out of service 44 years ago, original owner	IN	IN	IN	EZ		!	
2000, 2010, 2020,			1940s	of 2010 Penncraft says filled in; inspector could not locate; not in							
2021	no sample	NA		subdivision, city water not available when built	YY	?	Ν	A2	none	0	done* (cannot confirm well was plugged)
-				not in subdivision; city water not available when built, may have						-	
Penncraft Ct 2003	no sample	NA	1941	been on community well or had its own	YN	Y	Y3	E1		?	done*
				PLS plugged well in 2009 to 87 ft.; not in subdivision, city water							
				not available when built; original survey response reported an							done (no indication PLS sampled well
Penncraft Ct 2005		NA	1953	unused well in front of the house (in addition to community well)	YY	?	Y1	A2	х	0	before plugging)
Pine Ridge 205	no sample	NA	1939	Assessor's Plat #12; built before hook up required	N	N	N	E2		?	DNRE to provide PZ order
Pine Ridge 208	no sample	NA	1940	Assessor's Plat #12; built before hook up required	N	N	N	E2		?	DNRE to provide PZ order
				30 yr. owner has no knowledge of well; built before Assessor's							
Dine Didae 044		NIA	1011	Plat #12 was platted & before hook up available; annexed 1963;		2	N	Da		4	DI O ta anavida DZ andar
Pine Ridge 211 Pine Ridge 212	no sample	NA NA	1911 1940	1st billed for water 1996 Assessor's Plat #12; built before hook up required	YY N	? N	N N	D3 E2		1 ?	PLS to provide PZ order DNRE to provide PZ order
Pine Ridge 212	no sample	NA	1940	built before Assessor's Plat #12 was platted & before hook up	IN	IN	IN	EZ		?	
				available; annexed to city 1964; 1st billed for water 1985;							
Pine Ridge 215	no sample	NA	1919	annexed 2003	YN	?	Ν	D3		1	PLS to provide PZ order
r ino ritago 210	no oumpio	10.1	1010	built before Assessor's Plat #12 was platted, before hook up				20		•	
Pine Ridge 216	no sample	NA	1929	required; tap date 1927	N	Ν	Ν	E2		?	DNRE to provide PZ order
				built before Assessor's Plat #12 was platted, before hook up							
Pine Ridge 218	no sample	NA	1925	required; tap date 1926	N	Ν	Ν	E2		?	DNRE to provide PZ order
				built before Assessor's Plat #12 was platted, before hook up							
Pine Ridge 300	no sample	NA	1926	required; tap date 1928	N	N	N	D3		1	DNRE to provide PZ order
				built before Assessor's Plat #12 was platted, before hook up							
Pine Ridge 301	no sample	NA	1922	required; tap date 1925	N	N	N	D3		1	DNRE to provide PZ order
			4000	built before Assessor's Plat #12 was platted, before hook up				Do			
Pine Ridge 304	no sample	NA	1920	required; tap date 1927 built before Assessor's Plat #12 was platted, before hook up	N	N	N	D3		1	DNRE to provide PZ order
Pine Ridge 305	no sample	NA	1925	required; tap date 1926	Ν	Ν	Ν	E2		?	DNRE to provide PZ order
Pine Ridge 308	NA	NA	1950	Assessor's Plat #12; built in city after hook-up required	N	N	N	A1	NA	0	done
r ino ritago oco	107	10.1	1000	built before Assessor's Plat #12 was platted, before hook up				7.1		0	
Pine Ridge 311	no sample	NA	1924	required; tap date 1927; annexed 1964; 1st billed for water 1992	Ν	Ν	Ν	D3		1	DNRE to provide PZ order
0				built before Assessor's Plat #12 was platted, before hook up							• • • •
Pine Ridge 312	no sample	NA	1928	required; tap date 1929	N	Ν	Ν	E2		?	DNRE to provide PZ order
Pine Tree Dr											
1000	NA	NA	1954	not in subdivision	YN	Y	Y1	E1		?	done*
				owner has lived there two months; has no knowledge of wells;	201						PLS will inspect or send letter per
Porter 3404	ND	Mar-93	1940	annexed 1988; to be plugged per 5/24/94 letter;	YY	?	N	D3		1	10/24/08 report
Porter 3412	15	May-86		WAL w/5/19/06 report	N	N	N	A2	х	0	done
Porter 3415	ND	May-86		PLS could not locate well when attempted to sample in past; annexed 2001	YN	?	N	D3		1	PLS to provide PZ order
Porter 3437	ND	Apr-86		WAL w/5/19/06 report	N	ہ N	N	A2	x	0	done
		7.pi-00		occupant has no knowledge of well but provided name of owner	11			112	<u>^</u>	0	PLS will inspect or send letter per
Rhea 281	ND	May-86	1945	for more info; annexed 1988	YY	?	Ν	D3		1	10/24/08 report
		.,		identified during well ID dispute; in city when built, before 1945	-			÷			
Sunset Rd 223	NA	NA	1901	when hook-up not required	N	Ν	Ν	E2		?	DNRE to provide PZ order
				identified during well ID dispute; in city when built, before 1945					1		
Sunset Rd 428	NA	NA	1901	when hook-up not required	N	N	N	E2		?	DNRE to provide PZ order
				identified during well ID dispute; in city when built, before 1945							
Sunset Rd 446	NA	NA	1920	when hook-up not required	N	N	Ν	E2		?	DNRE to provide PZ order

	1,4-							DNRE			
	dioxane	date of	date		Survey/	PZ Order	In 9/2/09	Comment			
Address	ppb	sample	built	Well History and Status	Response	Provided	Order <sup>1</sup>	Code	WAL <sup>2</sup>	Well <sup>3</sup>	Comments <sup>4</sup>
				identified during well ID dispute; in city when built, before 1945							
Sunset Rd 450	NA	NA	1901	when hook-up not required	N	N	N	E2		?	DNRE to provide PZ order
				identified during well ID dispute; in city when built, before 1945						_	
Sunset Rd 502	NA	NA	1937	when hook-up not required	N	N	N	E2		?	DNRE to provide PZ order
				identified during well ID dispute; in city when built, before 1945							
Sunset Rd 516	NA	NA	1901	when hook-up not required	N	N	N	E2		?	DNRE to provide PZ order
Support Dd 500	NA	NIA	1000	identified during well ID dispute; in city when built, before 1945 when hook-up not required	N	N	N	E2		2	DNRE to provide PZ order
Sunset Rd 528	NA	NA	1926		IN	N	IN	EZ		?	PLS to plug when not required for
Valley 2575	57	Nov-07	1058	DEQ approved as monitoring well Jan 2006	N	?	N	В		1	monitoring
Valley 2010	57	100-07	1330	in township when built & hook-up not required; annexed & tap		:		D			monitoring
Valley 2605	no sample	NA	1941	date 1969; 1st billed for water in 2002	YN	?	Ν	D3		1	PLS to provide PZ order
Valley 2000	no oumpio			owner says hooked up in 1968 but has no knowledge of wells; in		•		20			
				township when built & hook up not required; 1st billed for water							
Valley 2615	no sample	NA	1928	1970; annexed 2007	YY	?	Ν	D3		1	PLS to provide PZ order
								-			
			1959	owner since 1979 says built in 1970, has no knowledge of wells							
				but does not know if hooked up when built; city web site says built							
Valley 2631	no sample	NA	1970	1959; 1st billed for water 1968; annexed 1969	YY	?	Ν	E2		?	PLS to provide PZ order
Valley 2645	NA	NA	1971	original owner says hooked up when built; annexed 1967	YY	?	Ν	A1	NA	0	done
				owner says not hooked up when built but has no knowledge of							
Valley 2661	no sample	NA	1940	wells; annexed & 1st billed for water 1969	YY	?	N	D3		1	PLS to provide PZ order
				house was empty when surveyed; new owner; annexed & tap							
Valley 2667	NA	NA		date 1968	YN	?	N	A1	NA	0	done
				owner of two years says hooked up when built; no knowledge of							
Valley 2675	NA	NA		well; annexed & tap date 1968	YY	?	N	A1	NA	0	done
Valley 2681	NA	NA		owner says no well; annexed & tap date 1968	YY	?	N	A1	NA	0	done
				occupant does not know if hooked up when built, has no	207						
Valley 2689	NA	NA		knowledge of wells; annexed & tap date 1968	YY YN	?	N	A1	NA	0	done
Valley 2695	NA	NA		annexed & tap date 1968	YIN	?	N	A1	NA	0	done
Valley 2721	no comple	NA		inspected by PLS, no wells found; not hooked up when built per owner; annexed in 1969; 1st billed for water 2000	YY	?	N	D3		1	PLS to provide PZ order
Valley 2721	no sample	INA		owner since 1978 says hooked up when built, no knowledge of	11	!	IN	D3		- 1	
Valley 2731	NA	NA		wells; annexed & tap date 1970	YY	?	N	A1	NA	0	done
Valley 2751	INA	INA.	1375	owner does not know if hooked up when built; has no knowledge				A1	INA	0	done
Valley 2741	NA	NA	1978	of wells; tap date 1978; annexed 1979	YY	?	Ν	A1	NA	0	done
				original owner said there was a well, not sure if plugged, believes		-				-	
				hooked to city water 1970-1980; PLS could not locate well; 1st							
Valley 2825	no sample	NA	1951	billed for water 1978; annexed 1981	YY	?	Ν	D3		1	PLS to provide PZ order
				original owner says hooked up when built; annexed & tap date							
Valley 2835	NA	NA	1980	1980	YY	?	Ν	A1	NA	0	done
Valley 2915	no sample	NA	1950	owner of 26 years says well in basement not in use; well plugged	YY	?	N	A2	х	0	done
Valley 2949	NA	NA	2002	vacant until 2002; annexed 2002	N	N	Ν	A1	NA	0	done
Wagner S 127	NA	NA	2002	vacant until 2002	N	N	N	A1	NA	0	done
Wagner S 137	NA	NA	2003	vacant until 2002; tap date 2002; annexed 2003	N	N	N	A1	NA	0	done
Wagner S 157	ND	May-86		WAL w/5/19/06 report	N	N	N	A2	х	0	done
Wagner S 205	ND	May-86		WAL w/5/19/06 report	YN	?	N	A2	x	0	done
Wagner S 215	NA	NA	1997	tap date 1997; annexed 2001	N	N	N	A1	NA	0	done
W		11. 05	4000		201	•	<u>.</u> .	D.			PLS will inspect or send letter per
Wagner S 249	ND	May-86	1926	owner of 8 years doesn't know if well abandoned; annexed 1987	YY	?	N	D3		1	10/24/08 report
Wegner 0.007		Max 00	1005	anneved 1000	VN	0	N	Da			PLS will inspect or send letter per
Wagner S 267	ND	May-86		annexed 1988	YN	? N	N	D3	NIA	1	10/24/08 report
Wagner S 343 Wagner S 351	NA ND	NA May 86	NA	vacant lot as of 2009; in city current owner says it was capped; WAL w/5/19/06 report	N YY	N ?	N	A1	NA	0	done
wayner 3 331	ND	May-86		Current owner says it was capped; WAL w/o/ 19/00 report	ΙĬ	<i>!</i>	N	A2	х	0	done

	1,4-						In 0/0/00	DNRE			
	dioxane	date of	date		Survey/	PZ Order	In 9/2/09	••••••		3	<b>a</b> 4
Address	ppb	sample	built	Well History and Status	Response	Provided	Order <sup>1</sup>	Code	WAL <sup>2</sup>	Well <sup>3</sup>	
Mana 0.050	ND	A			VAL	?	N	Da		1	PLS will inspect or send letter per
Wagner S 359	ND	Aug-01		annexed 1988	YN	?	N N	D3	NIA		10/24/08 report
Wagner S 591	NA	NA Ostr 04		hooked up to city water by PLS; did not have well previously	N	?		A1	NA	0	done
Wagner S 597	ND-deq	Sep-04		PLS hooked up to city water & plugged	N	?	N	A2	X	0	done
Wagner S 603	ND-deq	Feb-96		PLS hooked up to city water & plugged	N	-	N	A2	х	0	done
Wagner S 609	2-deq	Sep-04		PLS hooked up to city water & plugged	N	?	N	A2	х	0	done
Wagner S 679	ND	Aug-01		PLS hooked up to city water & plugged	N	?	N	A2	х	0	done
				1,4-dioxane never detected; vacant, well damaged & septic							
				system has failed as of March 2010; can't be occupied until							PLS must provide city water & plug well
Wagner S 685	ND	Jul-08		hooked up to sewer & city water	N	Y	N	D2		1	when connected to sewer
				1,4-dioxane never detected; owner has not signed PLS contract							PLS must sample annually & provide city
				to be hooked up to city water; PLS to monitor annually and							water at the request of the property
Wagner S 697	ND	Jul-08		provide annual notice until hooked up	N	Y	N	D2		1	owner
Westover 056	ND	May-86		WAL w/5/19/06 report	N	N	N	A2	х	0	done
Westover 060	NA	NA	2004	in city limits and 1st billed for water 2005	N	N	N	A1	NA	0	done
Westover 065	89	May-86		WAL w/5/19/06 report	N	N	N	A2	х	0	done
Westover 075	NA	NA	2004	in city limits & 1st billed for water in 2005	N	N	N	A1	NA	0	done
Westover 126	ND	Apr-86		WAL w/5/19/06 report	N	N	N	A2	х	0	done
Westover 143	165	Apr-86		WAL w/5/19/06 report	N	N	N	A2	х	0	done
Westover 144	ND	May-86		WAL w/5/19/06 report	N	N	N	A2	х	0	done
				appears to have been vacant before 2000; 1st billed for water in							
Westover 160	NA	NA	2000	2006	Ν	Ν	Ν	A1	NA	0	done
Westover 163	103	Apr-86		WAL w/5/19/06 report	N	N	N	A2	х	0	done
Westover 204	7	Apr-86		WAL w/5/19/06 report	N	N	N	A2	х	0	done
				owner of 6 years says built 1920s; unsure if well plugged; kept							PLS will inspect or send letter per
Westover 211	ND	Jul-92	1920s	open for monitoring per 5/24/94 letter; annexed 1988	YY	?	Ν	D3		1	10/24/08 report
Westover 212	ND	May-86		WAL w/5/19/06 report	N	N	N	A2	х	0	done
Westover 213	ND	May-86		WAL w/5/19/06 report	N	N	N	A2	х	0	done
Westover 235	ND	May-86		WAL w/5/19/06 report	N	N	N	A2	х	0	done
Westover 254	ND	Apr-86		WAL w/5/19/06 report	N	N	N	A2	х	0	done
Westover 263	ND	May-86		WAL w/5/19/06 report	Ν	N	N	A2	х	0	done
FOOTNOTES				DNRE Comment Codes		1	1				1
1 - Y1 (survey & F	DZ ordor)			A1 - no further action; no evidence of a well							
· · ·	,			A2 - no further action; well plugged							
Y2 (PZ order o		1)		B - DNRE approved monitoring well							
Y3 (verify PZ order provided) Y4 (documentation of well status)				C - DNRE will consider exception							
				D1 - well known/believed to exist; hooked up to city water, PZ no	tice provided						
2 - well abandonment log (WAL) on file if "x";				D2 - well used for drinking water							
not applicable if "N				D3 - well known/believed to exist; hooked up to city water, PZ not							
3 - well not plugged or not documented to be				E1 - existence of well unknown; PZ order provided							
plugged if "1"; no well or former well plugged if				E2 - existence of well unknown; PZ order provided							
"0"											
4 - done* - if well f	ound, PLS t	o plug									
						-		-			